

### **ABSTRACT OF THE DISCLOSURE**

A method and special mechanical apparatus for installation of support pier for structure comprises positioning a hollow tube apparatus in a soil matrix wherein the hollow tube apparatus has a hollow core and is susceptible to lateral and longitudinal movement, removing soil from the hollow core and then filling that core with an aggregate followed by raising and lowering of the hollow tube apparatus by means of a special bottom mechanical device in a manner which compacts the aggregate and also applies lateral forces to the aggregate against the walls of the cavity in the soil matrix, pushing a portion of the aggregate into the soil matrix.